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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,051	11/29/2001	Andreas Wicher	DE 000214	5503

7590 09/25/2002

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EXAMINER

NGUYEN, LINH V

ART UNIT	PAPER NUMBER
2819	

DATE MAILED: 09/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/998,051	WICHERN ET AL.
	Examiner	Art Unit
	Linh V Nguyen	2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11/29/01.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-7 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-7 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 29 November 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- 1) Certified copies of the priority documents have been received.
- 2) Certified copies of the priority documents have been received in Application No. _____.
- 3) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____ .
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . 6) Other: _____

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

Claims 2, 3, 5, and 6, are objected to because of the following informalities:

- needs to replace "A" from beginning of claims 2 and 3 with --the-- .
- needs to replace "An" from beginning of claims 5 and 6 with --the--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 6, are rejected under 35 U.S.C. 102(b) as being anticipated by Tiller et al U.S. 5,933,771.
3. Regarding to claim 1, Fig. 4 Tiller et al. disclose a controllable amplifier arrangement comprising: a first differential amplifier stage (30) having a first and a second output branch, a second differential amplifier stage (Q3, Q4) which is coupled to the first output branch of the first differential amplifier stage and has at least a first and a second output branch, at which a first current ($I_{dc}/2 + I_{sig}/2$) in the first output branch of the first differential amplifier stage is controllably divided into partial currents, a third differential amplifier stage (Q5, Q6) which is coupled to the second output branch of the first differential amplifier stage and has at least a first and a second output branch, at

which a second current ($Idc/2 - Isig/2$) in the second output branch of the first differential amplifier stage is controllably divided into partial currents, a first load impedance (RC) coupled to one of the first output branches of the second differential amplifier stage for generating a first output voltage ($Vout+$) from the partial current flowing in the one of the first output branches of the second differential amplifier stage, and a second load impedance (RC) coupled to one of the first output branches of the third differential amplifier stage for generating a second output voltage ($Vout-$) from the partial current flowing in the one of the first output branches of the third differential amplifier stage, wherein: the first and the second load impedance are bridged to a predetermined part by at least one of the second output branches of the second and third differential amplifier stages respectively (inherent to Tiller et al., hence Tiller disclose identical structures of claimed invention);

4. Regarding to claim 2, wherein the amplifier arrangement characterized in that one of the second output branches of the second differential amplifier stage has two jointly controlled sub-branches (collector of Q3 jointing collector Q5), a first sub-branch (collector of Q3) of which is coupled to the first load impedance, and in that one of the second output branches of the third differential amplifier stage has two jointly controlled sub-branches (collector of Q6 jointing collector Q4); a first sub-branch (collector of Q6) of which is coupled to the second load impedance.

5. Regarding to claim 3, wherein the controllable amplifier arrangement characterized in that one of the second output branches of the second differential amplifier stage is coupled to a tap ($Vout+$) on the first load impedance, and one of the

second output branches of the third differential amplifier stage is coupled to a tap on the second load impedance (V_{out-}).

6. Regarding to claim 4, an arrangement for processing electric signals, characterized by at least one of the controllable amplifier arrangement (inherent for electrical circuit.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5 and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Tiller et al., in view of Ransijn U.S. paten No. 5,945,847.

9. Regarding to claim 5, the controllable amplifier of Tiller et al. in Fig. 4 further discloses the second and the third differential amplifier stage formed with transistors of the controllable amplifier arrangements are controllable by means of common control signals (V_{io+} , V_{io-} , V_{gc} , also see fig. 6 for common node inputs of V_{io} and V_{gc}) and have control characteristics which are mutually offset in such a way that the partial currents flowing in the output branches of the second and the third differential amplifier stage are reversed in the individual controllable amplifier arrangements at different values of the common control signals (inherent to Tiller et al., hence Tiller disclose identical structures of claimed invention). Tiller et al. as discussed and as applied to

claims 1 – 4 above disclose every aspect of applicant's claimed invention except for the arrangement circuit having at least two controllable amplifiers.

Fig. 2 and 5, Ransijn disclose a controllable amplifier circuit having multiple amplifier stages.

Tiller et al. and Ransijn are analogous, because they are from similar problem solving area of differential amplifier circuit. Therefore, it would have been obvious to one in the art at the time the invention was made to using controllable amplifier of Tiller et al. with multiple amplifiers concept of Ransijn for the purpose of providing the need for wideband amplifiers (Ransijn. Col. 1 lines 12 –14), and improving noise or intermodulation performance (Tiller et al. Col. 1 lines 54 – 57)

10. Regarding to claim 6, Tiller et al in combining with Ransijn as applied to claim 5 above disclose every aspect of applicant's claimed invention. Because the main current paths of the second and the third differential amplifier stage have current conveying cross-sectional areas whose dimensioning determines the reversal of the partial currents in the output branches of the second and third differential amplifier stages of the individual controllable amplifier arrangements at the different values of the common control signals in the individual controllable amplifier arrangements are deemed to be made clearly inherent by the functions of the structure in the combination discussed above.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Van Nguyen whose telephone number is (703) 305-1934. The examiner can normally be reached from 8:30 – 5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Tokar can be reached at (703) 305-3493. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

LVN

September 11, 2002



Michael Tokar
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